Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): ~~Seed~~ A seed of maize inbred line designated PHB6R, representative seed of said line having been deposited under ATCC Accession No. PTA-XXXX.

Claim 2 (Previously presented): A maize plant, or a part thereof, produced by growing the seed of claim 1.

Claim 3 (Previously presented): The maize plant of claim 2 wherein said plant has been detasseled.

Claim 4 (Previously presented): A tissue culture of regenerable cells produced from the plant of claim 2.

Claim 5 (Previously presented): Protoplasts produced from the tissue culture of claim 4.

Claim 6 (Currently amended): The tissue culture of claim 4, wherein cells of the tissue culture are produced from a tissue selected from the group consisting of leaf, pollen, embryo, root, root tip, anther, silk, flower, kernel, ear, cob, husk and stalk.

Claim 7 (Currently amended): A maize plant regenerated from the tissue culture of claim 6, said plant having all the morphological and physiological characteristics of maize inbred line PHB6R, representative seed of said line having been deposited under ATCC Accession No. PTA-XXXX.

Claim 8 (Previously presented): A method for producing an F1 hybrid maize seed, comprising crossing the plant of claim 2 with a different maize plant and harvesting the resultant F1 hybrid maize seed.

Claim 9 (Previously presented): A method of producing a male sterile maize plant comprising transforming the maize plant of claim 2 with a nucleic acid molecule that confers male sterility.

Claim 10 (Previously presented): A male sterile maize plant produced by the method of claim 9.

Claim 11 (Previously presented): A method of producing an herbicide resistant maize plant comprising transforming the maize plant of claim 2 with a transgene that confers herbicide resistance.

Claim 12 (Previously presented): An herbicide resistant maize plant produced by the method of claim 11.

Claim 13 (Currently amended): The maize plant of claim 12, wherein the transgene confers resistance to an herbicide selected from the group consisting of [[:]] imidazolinone, sulfonylurea, glyphosate, glufosinate, L-phosphinothricin, triazine and benzonitrile.

Claim 14 (Previously presented): A method of producing an insect resistant maize plant comprising transforming the maize plant of claim 2 with a transgene that confers insect resistance.

Claim 15 (Previously presented): An insect resistant maize plant produced by the method of claim 14.

Claim 16 (Previously presented): The maize plant of claim 15, wherein the transgene encodes a *Bacillus thuringiensis* endotoxin.

Claim 17 (Previously presented): A method of producing a disease resistant maize plant comprising transforming the maize plant of claim 2 with a transgene that confers disease resistance.

Claim 18 (Previously presented): A disease resistant maize plant produced by the method of claim 17.

Claim 19 (Previously presented): A method of producing a maize plant with decreased phytate content comprising transforming the maize plant of claim 2 with a transgene encoding phytase.

Claim 20 (Previously presented): A maize plant with decreased phytate content produced by the method of claim 19.

Claim 21 (Currently amended): A method of producing a maize plant with modified fatty acid metabolism or modified carbohydrate metabolism comprising transforming the maize plant of claim 2 with a transgene encoding a protein selected from the group consisting of ~~stearyl~~stearoyl-ACP desaturase, fructosyltransferase, levansucrase, alpha-amylase, invertase and starch branching enzyme.

Claim 22 (Currently amended): A maize plant having modified fatty acid metabolism or modified carbohydrate metabolism produced by the method of claim 21.

Claim 23 (Previously presented): The maize plant of claim 22, wherein the transgene confers a trait selected from the group consisting of waxy starch and increased amylose starch.

Claim 24 (Currently amended): A method of introducing a desired trait into maize inbred line PHB6R comprising:

(a) crossing a PHB6R plants grown from PHB6R seed, representative seed of which has been deposited under ATCC Accession No. PTA-XXXX, with a plant[[s]] of another maize line that comprises a desired trait to produce F1 progeny plants, wherein the desired trait is selected from the group consisting of male sterility, herbicide resistance, insect resistance, disease resistance and waxy starch;

(b) selecting F1 progeny plants that have the desired trait to produce selected F1 progeny plants;

(c) crossing the selected progeny plants with the PHB6R plants to produce backcross progeny plants;

(d) selecting for backcross progeny plants that have the desired trait and physiological and morphological characteristics of maize inbred line PHB6R listed in Table 1 to produce selected backcross progeny plants; and

(e) repeating steps (c) and (d) three or more times in succession to produce selected fourth or higher backcross progeny plants that comprise the desired trait and all of the physiological and morphological characteristics of maize inbred line PHB6R listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.

Claim 25 (Previously presented): A plant produced by the method of claim 24, wherein the plant has the desired trait and all of the physiological and morphological characteristics of maize inbred line PHB6R listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.

Claim 26 (Currently amended): The plant of claim 25, wherein the desired trait is herbicide resistance and the resistance is conferred to an herbicide selected from the group consisting of [[:]] imidazolinone, sulfonylurea, glyphosate, glufosinate, L-phosphinothricin, triazine and benzonitrile.

Claim 27 (Previously presented): The plant of claim 25, wherein the desired trait is insect resistance and the insect resistance is conferred by a transgene encoding a *Bacillus thuringiensis* endotoxin.

Claim 28 (Previously presented): The plant of claim 25, wherein the desired trait is male sterility and the trait is conferred by a cytoplasmic nucleic acid molecule that confers male sterility.

Claim 29 (Currently amended): A method of modifying fatty acid metabolism, phytic acid metabolism or carbohydrate metabolism in maize inbred line PHB6R comprising:

(a) crossing a PHB6R plants grown from PHB6R seed, representative seed of which has been deposited under ATCC Accession No. PTA-XXXX, with a plant[[s]] of another maize line that comprises a nucleic acid molecule encoding ~~or inhibiting~~ a polypeptide selected from the group consisting of phytase, ~~stearyl-ACP-desaturase~~, fructosyltransferase, levansucrase, alpha-amylase, invertase and starch branching enzyme or encoding an antisense stearoyl-ACP desaturase;

(b) selecting F1 progeny plants that have said nucleic acid molecule to produce selected F1 progeny plants;

(c) crossing the selected progeny plants with the PHB6R plants to produce backcross progeny plants;

(d) selecting for backcross progeny plants that have said nucleic acid molecule and physiological and morphological characteristics of maize inbred line PHB6R listed in Table 1 to produce selected backcross progeny plants; and

(e) repeating steps (c) and (d) three or more times in succession to produce selected fourth or higher backcross progeny plants that comprise said nucleic acid molecule and have all of the physiological and morphological characteristics of maize inbred line PHB6R listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.

Claim 30 (Previously presented): A plant having modified fatty acid metabolism, phytic acid metabolism or carbohydrate metabolism produced by the method of claim 29, wherein the plant comprises the nucleic acid molecule and has all of the physiological and morphological characteristics of maize inbred line PHB6R listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.